



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/085,285	02/24/2002	Frederic Leuba	ICB-0049	1142

7590 12/17/2003
Richard K. Robinson
Attorney at Law
North Dallas Bank Tower, Suite 1202
12900 Preston Road, LB-41
Dallas, TX 75230

EXAMINER

LINDINGER, MICHAEL L

ART UNIT PAPER NUMBER

2841

DATE MAILED: 12/17/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/085,285	LEUBA ET AL.	
	Examiner	Art Unit	
	Michael L. Lindinger	2841	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED. (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
 If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-829)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Specification

The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

Arrangement of the Specification

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

- (a) TITLE OF THE INVENTION.
- (b) CROSS-REFERENCE TO RELATED APPLICATIONS.
- (c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
- (d) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC (See 37 CFR 1.52(e)(5) and MPEP 608.05. Computer program listings (37 CFR 1.96(c)), "Sequence Listings" (37 CFR 1.821(c)), and tables having more than 50 pages of text are permitted to be submitted on compact discs.) or
REFERENCE TO A "MICROFICHE APPENDIX" (See MPEP § 608.05(a). "Microfiche Appendices" were accepted by the Office until March 1, 2001.)
- (e) BACKGROUND OF THE INVENTION.
 - (1) Field of the Invention.
 - (2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.
- (f) BRIEF SUMMARY OF THE INVENTION.
- (g) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).
- (h) DETAILED DESCRIPTION OF THE INVENTION.
- (i) CLAIM OR CLAIMS (commencing on a separate sheet).
- (j) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).
- (k) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

1. Claims 18-19 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter, which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. In particular, although the purpose of the functional unit (microgenerator) has been established, nowhere in the Disclosure of how this functional unit would be able to detect an external magnetic field, wherein this detection would be utilized for a compass. There is no mention of a detection element or detection means within the claimed apparatus. As required, there must be clear enablement to utilize the functional unit as described in the Disclosure.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 1-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schafrath U.S. Patent No. 6,124,649 in view of Nelson U.S. Patent No. 4,176,362. Schafrath teaches a timepiece including in particular a functional unit (not explicitly numbered) including magnetized masses 12, an electronic module 80 including a support with conductive paths connected to at least one integrated circuit 81, wherein at least the conductive paths are in proximity to said functional unit, wherein the support is of synthetic or composite material, wherein the electronic module further includes at least a discrete electronic unit, wherein the discrete electronic unit is a capacitor 82-84, wherein said functional unit is a microgenerator, wherein said microgenerator includes a rotor (not explicitly numbered) including two flanges each having substantially the shape of a disc and each carrying, on its face facing the other flange, an even number (6) of magnetized masses, said electronic module including at least a stator coil 20-22 fixed to said support and partially inserted between the two flanges, wherein the conductive paths of said support connecting said at least one coil to said integrated circuit (Col. 2, lines 57+; Col. 3, lines 1+; FIG. 2). Schafrath does not explicitly teach the conductive paths have essentially non-magnetic properties, wherein said paths include a protective

layer and an adherence underlayer formed of a non-magnetic material, wherein the non-magnetic material is a nickel based alloy. Nelson teaches an apparatus where alternating layers of materials are utilized, wherein the layers are made of magnetized 50 and non-magnetized 52, wherein the non-magnetized material is nickel. Further, the apparatus shows how places on a recording tape are influenced by the amount of magnetism present. Included in the apparatus are means to apply the layer through etching techniques known in building printed circuit boards (Col. 3, lines 17+; FIG. 2). In addition, within the Applicant's Disclosure, it has been established that in the prior art, said conductive paths are typically made in two steps. The first step consists in depositing an layer of a very good electrically conductive material, such as a copper or gold based alloy. The second step then consists in depositing a fine protective layer, on the conductive layer, formed of a nickel-based alloy with good resistance to oxidization. Sometimes an underlayer is deposited on the substrate before depositing the conductive layer. This underlayer, usually formed of a nickel-based alloy, allows the adherence of the conductive layer to the substrate to be improved (Disclosure, page 2, lines 29+). It would have been obvious to a person skilled in the art at the time of the invention to adapt the conductive paths of the Schafroth reference to include conductive paths made exclusively of a non-magnetic material, wherein the material is a nickel-based alloy. Normally, it is expected that a change in temperature, or in concentration, or in both, would be an unpatentable modification. Under some circumstances, however, changes such as these may impart patentability to a process if the particular ranges claimed to produce a new and unexpected result, which is different in kind, and

not merely in degree from results of the prior art (*In re Aller*, 105 USPQ 233 (CCPA 1955)). In the instant case, if using one layer of a non-magnetic, conductive material such as nickel reduces the amount of magnetic inference when used with a layer of a magnetic conductive material, then it would be an conclusion that to minimize magnetic inference even more, it would behoove the user to utilize multiple layers of non-magnetic conductive material for the conductive paths, and eliminate magnetic conductive material from usage.

Prior Art

1. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

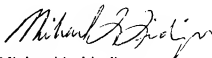
- Yokono U.S. Patent No. 5,569,545 discloses a copper clad laminate, multi-layer printed circuit board and their processing method.
- Haji-Sheikh U.S. Patent No. 5,667,879 discloses a tan/nife/tan anisotropic magnetic sensor element comprising non-magnetic means to detect magnetic fields.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael L. Lindinger whose telephone number is (703) 305-0618. The examiner can normally be reached on Monday-Thursday (7:30-6).

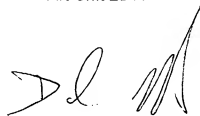
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Martin can be reached on (703) 308-3121. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.



Michael L. Lindinger
Patent Examiner
Art Unit 2841

MLL



DAVID MARTIN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800